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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, TAM M

ART UNIT PAPER NUMBER

3764

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary

Application No.

09/818,999

Applicant(s)

EGGER, NORBERT

Examiner

Tam Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 10-31, 34-39 and 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 32, 33, 40 and 42-52 is/are rejected.
- 7) ☒ Claim(s) 1-5, 9, 32, 33, 40 and 42-52 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. The amendments to the claims received May 2, 2005 have been entered.

Withdrawal of Finality

2. Upon further review of the prior art, the finality of the last Office action dated April 5, 2005 is withdrawn to allow for the applicant to respond to the new claim rejections.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "workout device... adapted to generate a treading resistance" disclosed in claims 49-52 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Until this matter is clarified, the examiner will not consider the term "treading" to expedite the prosecution.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1-5, 9, 32, 33, 40 and 42- 51 are objected to because of the following informalities:

Claim 1, line 1, after "flow" insert --to--.

Claims 1, 32, 33, 40, 42, 46, 49 and 52, each on line 3, the phrase "without causing an increase in gravity effects on the user" appears to be incorrect. The claimed apparatus includes a pressure device to increase and decrease pressure within a sealed chamber. In a sealed chamber, an increase in pressure results in hypergravity and a decrease in pressure results in hypogravity; thus the phrase above appears to be incorrect.

Claim 4, line 3, the phrase "reduction in pressure from 0.02 bar to 0.2 bar" appears to be incorrect since such a change would be an increase in pressure. The examiner will assume that the pressure's magnitude is reduced between a range of 0.0 bar and 0.18 bar to expedite the prosecution.

Claim 5, line 3, the phrase "reduction in pressure from 0.05 bar to 0.15 bar" appears to be incorrect since such a change would be an increase in pressure. The examiner will assume that the pressure's magnitude is reduced between a range of 0.0 bar and 0.10 bar to expedite the prosecution.

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Claim 33, line 2, delete "the skin of a person" and insert --a person's skin--.

Claim 33, line 5, delete "the lower part of said person" and insert --said person--.

Claim 33, line 6, delete "pressure chamber, said" and insert --pressure chamber such that the person from the waist down is enclosed in the chamber, said--.

Claim 33, line 8, delete "the body of".

Claim 42, line 1, after "flow" insert --to--.

Claim 42, line 14, delete "if a low pressure limit is reached" and insert --when a low pressure limit is reached--.

Claim 46, line 13, delete "permanent" and insert --continuous--.

Claims 47 and 48 are also objected to for being dependent on an objected base claim.

Claim 48, line 3, the phrase "reduction in pressure from 0.02 bar to 0.05 bar" appears to be incorrect since such a change would be an increase in pressure. The examiner will assume that the pressure's magnitude is reduced between a range of 0.0 bar and 0.03 bar to expedite the prosecution.

Claim 51, line 3, the phrase "reduction in pressure from 0.02 bar to 0.05 bar" appears to be incorrect since such a change would be an increase in pressure. The examiner will assume that the pressure's magnitude is reduced between a range of 0.0 bar and 0.03 bar to expedite the prosecution.

Claims 2-5, 9, 43-45, 47, 48, 50 and 51 are objected to for being dependent on an objected base claim.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 9, 32, 33 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whalen (5,133,339) in view of Cooper (1,336,774).

5. As to claims 1-3 and 9, Whalen discloses an apparatus comprising an air-tight housing (50) with an opening capable of tightly enclosing a user's waist, a workout device (such as a "treadmill, stairclimber or other exercise equipment") actuated with the user's legs and disposed within the housing and a device for creating differential pressure wherein the device is arranged to alternately produce a pressure reduction and a pressure increase throughout the housing to simulate gravitational forces (see Fig. 5a, ABSTRACT, Col. 6, lines 49-52, Col. 7, lines 33-37 & Col. 9, lines 40-50). Whalen does not disclose a support means in the housing to take the body weight off the user's legs. Cooper discloses a similar apparatus for physical training having an enclosed chamber (10) wherein the pressure is changed (when vapor is generated in the chamber) during exercise on a workout device (11) that includes a height adjustable support means (seat) to take the weight off of a user's legs (see Fig. 1). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to substitute Whalen's exercise device with Cooper's cycling workout device that includes a seat for users who may benefit from the differential pressure but may be too weak to

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stand on their own during exercise (see specifically Col. 6, lines 49-52 and Col. 9, lines 9-14).

6. As to claims 32 and 40, Whalen and Cooper disclose a modified apparatus as substantially claimed (see discussion of claims 1-3 & 9).

7. As to claim 33, Whalen and Cooper disclose a modified apparatus and inherently a method of exercise as substantially claimed (see discussion of claims 1-3 & 9).

Whalen further discloses that the pressure device can provide positive and negative pressure time profiles (see Col. 9, lines 40-50). That is, the device can provide positive pressures for given time periods, negative pressures for given time periods and transitional periods from positive to negative pressures. This broad range of pressure would include a person exercising in ambient conditions that changes to hypogravity conditions when a pressure below atmospheric is generated.

Claims 4, 5 and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whalen and Cooper in further view of Thornton (4,421,109).

8. As to claims 4 and 5, Whalen and Cooper disclose a modified apparatus as described above (see discussion of claim 1). Whalen further discloses that the pressure device may provide a reduction in pressure in the range of 0.013 bar (1.3 kPa) to 0.133 bar (13.3 kPa) (see Col. 4, lines 42-48). Whalen does not disclose that the range may be increased up to 0.2 bar (20kPa). Thornton discloses an apparatus that includes an enclosure and a pump device that provides a reduction in pressure up to 150 mmHg (0.2 bar) to simulate gravitational forces to improve a user's health. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make

Whalen's pressure device reduce pressure in the range of 0.02 bar to 0.2 bar since such a range has been shown to be medically beneficial to the user.

9. As to claims 42-45, Whalen, Cooper and Thornton disclose a modified apparatus as substantially claimed (see discussion of claims 2, 4 & 9). Whalen further discloses that the pressure device can provide positive and negative pressure time profiles (see Col. 9, lines 40-50). That is, the device can provide negative pressures for given time periods and then positive pressures for given time periods. Whalen does not disclose that the pressure is switched from a low pressure to a relatively higher pressure when a low pressure limit between 0.02 bar and 0.05 bar is reached. Whalen and Thornton disclose that the pressure may be in the range of 0.013 bar through 0.2 bar; thus the range would encompass the lower limit range at which the pressure is triggered to be reversed and increased. The prior art discloses the process wherein the pressure is decreased and then increased (see Whalen, Claim 19) and a range of pressures that includes the lower limit range as claimed; thus at the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the pressure device switch from negative to positive pressure when the pressure dropped down to any of an array of low pressure ranges including 0.02 bar and 0.05 bar so that a person would get the benefits of both hypergravity when the pressure is reduced and hypogravity when the pressure is increased.

Claims 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whalen, Cooper, Thornton in view of Weyergans (6,539,946).

10. As to claims 46-48, Whalen, Cooper and Thornton disclose a modified apparatus as substantially claimed. Whalen discloses that the pressure device can provide negative pressures for given time periods and then positive pressures for given time periods; however, Whalen does not disclose the time period for change is between 10-90 seconds. Weyergans discloses an alternating pressure apparatus that provides alternating pressure within a period of 2-120 seconds to improve a user's health (see Col. 5, lines 17-29). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow for Whalen's pressure device to provide alternating pressure in any of an array of time ranges including 10-90 seconds since the prior art discloses that a range of 2-120 seconds may be medically beneficial.

11. As to claims 49-51, Whalen, Cooper and Thornton disclose a modified apparatus as substantially claimed (see discussion of claim 42). They do not disclose that a resistance is coupled to a pressure device/switching means such that the resistance increases when a pressure acts on the user. However, Whalen does disclose a device arranged to alternately produce a pressure reduction and a pressure increase in the housing (see Whalen, claims 19 and 20) and Cooper discloses a pressure exercise device that includes an adjustable resistance (see Fig. 1). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the resistance of Whalen's exercise means adjustably increasable while the pressure acts on the user since the practice of adding resistance to gradually build a person's strength and the use of a pressurized chamber during exercise is well known in the prior art.

12. As to claim 52, Whalen, Cooper, Thornton and Weyergans discloses a modified apparatus as substantially claimed (see discussion of claims 42, 48 & 51).

Response to Arguments

13. Applicant's argument with respect to claim 33 has been considered but is moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam Nguyen whose telephone number is 571-272-4979. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 23, 2005



STEPHEN R. CROW
PRIMARY EXAMINER
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